CRS Issue Brief for Congress

Received through the CRS Web

Korea: U.S.-Korean Relations — Issues for Congress

Updated June 16, 2005

Larry A. Niksch Foreign Affairs, Defense, and Trade Division

maintaining the data needed, and of including suggestions for reducing	lection of information is estimated to completing and reviewing the collect this burden, to Washington Headqu uld be aware that notwithstanding ar OMB control number.	ion of information. Send comments arters Services, Directorate for Info	regarding this burden estimate rmation Operations and Reports	or any other aspect of the s, 1215 Jefferson Davis	nis collection of information, Highway, Suite 1204, Arlington	
1. REPORT DATE 16 JUN 2005		2. REPORT TYPE N/A		3. DATES COVERED -		
4. TITLE AND SUBTITLE		5a. CONTRACT NUMBER				
Korea: U.SKorean Relations Issues for Congress				5b. GRANT NUMBER		
				5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S)				5d. PROJECT NUMBER		
				5e. TASK NUMBER		
				5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Congressional Research Service The Library of Congress 101 Independence Ave SE Washington, DC 20540-7500				8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)		
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAIL Approved for publ	LABILITY STATEMENT ic release, distributi	on unlimited				
13. SUPPLEMENTARY NO The original docum	otes nent contains color i	mages.				
14. ABSTRACT						
15. SUBJECT TERMS						
16. SECURITY CLASSIFIC	17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF			
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified	SAR	18	RESPONSIBLE PERSON	

Report Documentation Page

Form Approved OMB No. 0704-0188

CONTENTS

SUMMARY

MOST RECENT DEVELOPMENTS

BACKGROUND AND ANALYSIS

U.S. Interests in South Korea

Recent Issues

Relations with North Korea

Nuclear Weapons and the Six-Party Talks

North Korea's Missile Program

Weapons of Mass Destruction

North Korea's Inclusion on the U.S. Terrorism List

Food Aid

North Korean Refugees in China and Human Rights

South Korea's Sunshine Policy and the Hyundai Payments to North Korea

Anti-Americanism and Plans to Change the U.S. Military Presence

FOR ADDITIONAL READING

Korea: U.S.-Korean Relations — Issues for Congress

SUMMARY

North Korea's decision in December 2002 to restart nuclear installations at Yongbyon that were shut down under the U.S.-North Korean Agreed Framework of 1994 and its announced withdrawal from the Nuclear Non-Proliferation Treaty create an acute foreign policy problem for the United States. Restarting the Yongbyon facilities opens up a possible North Korean intent to stage a "nuclear breakout" of its nuclear program and openly produce nuclear weapons. North Korea claims that it has nuclear weapons and that it has completed reprocessing nuclear weaponsgrade plutonium that could produce four to six atomic bombs. North Korea's actions follow the reported disclosure in October 2002 that North Korea is operating a secret nuclear program based on uranium enrichment and the decision by the Korean Peninsula Energy Development Organization (KEDO) in November 2002 to suspend shipments of heavy oil to North Korea — a key U.S. obligation under the Agreed Framework.

The main elements of Bush Administration policy are (1) demanding that North Korea totally dismantle its nuclear programs; (2) withholding any U.S. reciprocal measures until North Korea takes visible steps to dismantle its nuclear programs; (3) assembling an international coalition to apply pressure on North Korea in multilateral talks; and (4) planning for future economic sanctions and

military interdiction against North Korea. China organized six-party talks among the United States, China, Japan, North Korea, South Korea, and Russia in mid-2003, but the talks have made little progress. U.S. attempts to isolate North Korea in the talks have been countered by North Korea's strategy of threats to leave the talks, the issuance of settlement proposals, accusations that the United States plans an "Iraq-like" attack on North Korea, and denials that it has a uranium enrichment program. North Korea's announcement of February 10, 2005, suspending its participation in the talks appears aimed at creating a long-term diplomatic stalemate on the nuclear issue.

Differences have emerged between the Bush Administration and South Korea over policies toward North Korea. South Korea emphasizes bilateral reconciliation with North Korea and a policy more equidistant between the United States and China. The South Korean public has become critical of Bush Administration policies and the U.S. military presence. Anti-U.S. demonstrations erupted in 2002, and Roh Moo-hyun was elected President after criticizing the United States. In 2003-2004, the Pentagon announced plans to relocate U.S. troops in South Korea away from the demilitarized zone and Seoul. The United States will withdraw 12,500 troops between the end of 2004 and September 2008.



MOST RECENT DEVELOPMENTS

The six party talks on North Korea's nuclear programs appeared to have collapsed in view of North Korea's statements, demands, and actions since February 10, 2005. Since February 10, North Korea claimed that it is a "full-fledged nuclear weapons state;" suspended participation in the six party talks; issued a radical agenda for any future talks demanding a significant reduction of U.S. military power "in and around the Korean peninsula" and that the United States agree to a "peace system" to replace the 1953 Korean armistice; shut down its operating five electrical megawatt nuclear reactor with the stated intention of removing fuel rods for the production of nuclear weapons-grade plutonium; and issued new threats to transfer nuclear materials to terrorist groups. The Bush Administration's response has consisted of sharp rhetorical attacks on North Korean leader Kim Jong-il for human rights abuses by President Bush and Vice President Cheney, urging China to pressure North Korea to return to the six party talks, and meeting with North Korean officials at the United Nations. However, China rejected a Bush Administration proposal to cut off oil supplies to North Korea. In sequential statements of May 10 and 11, China rejected using sanctions to pressure North Korea on the nuclear issue and said that President Bush "destroyed the atmosphere" for the talks by issuing personal attacks on Kim Jong-il. At the U.S.-South Korean summit meeting of June 10, 2005, President Bush stated that the Administration would stick with its proposal to North Korea of June 23, 2004, but President Roh-Moo-hyun continued to refrain from endorsing that proposal in line with South Korea's position that a more detailed proposal is needed.

BACKGROUND AND ANALYSIS

U.S. Interests in South Korea

U.S. interests in the Republic of Korea (R.O.K. — South Korea) involve security, economic, and political concerns. The United States suffered over 33,000 killed and over 101,000 wounded in the Korean War (1950-53). The United States agreed to defend South Korea from external aggression in the 1954 Mutual Defense Treaty. The United States maintains about 34,000 troops there to supplement the 650,000-strong South Korean armed forces. This force is intended to deter North Korea's (the Democratic People's Republic of Korea — D.P.R.K.) 1.2 million-man army. Since 1991, attention has focused on North Korea's drive to develop nuclear weapons (see CRS Issue Brief IB91141, *North Korea's Nuclear Weapons Program*) and long-range missiles.

U.S. economic aid to South Korea, from 1945 to 2002, totaled over \$6 billion; most economic aid ended in the mid-1970s as South Korea's reached higher levels of economic development. U.S. military aid, from 1945 to 2002, totaled over \$8.8 billion. The United States is South Korea's second-largest trading partner (replaced as number one by China in 2002) and largest export market. South Korea is the seventh-largest U.S. trading partner.

Recent Issues

Relations with North Korea

The Bush Administration's policy toward North Korea has been based on two factors within the Administration. First, President Bush has voiced distrust of North Korea and its leader, Kim Jong-il. Second, there are divisions within the Administration over policy toward North Korea. An influential coalition consists of Secretary of Defense Rumsfeld and his advisers, Vice President Cheney and his advisers, and proliferation experts in the State Department and White House led by Under Secretary of State John Bolton. They reportedly oppose negotiations with North Korea, favor the issuance of demands for unilateral North Korean concessions on military issues, and advocate an overall U.S. strategy of isolating North Korea diplomatically and through economic sanctions. Officials within this group express hope and/or expectations of a collapse of the North Korean regime. A second approach, advanced mainly by officials in the State Department and White House with experience on East Asian and Korean issues, favor negotiations before adopting more coercive measures; they reportedly doubt the effectiveness of a strategy to bring about a North Korean collapse.

President Bush's designation of North Korea as part of an "axis of evil" in his January 29, 2002 State of the Union address symbolized a policy that is aimed at reducing and/or eliminating basic elements of North Korean military power, including nuclear weapons and/or nuclear weapons-grade materials and missiles.

Nuclear Weapons and the Six-Party Talks.¹ From 1994 to 2003, U.S. policy was based largely on the U.S.-North Korean Agreed Framework of October 1994. The Agreed Framework dealt with nuclear facilities that North Korea was developing at a site called Yongbyon. Facilities included a five megawatt nuclear reactor and a plutonium reprocessing plant. Two larger reactors were under construction. U.S. intelligence estimates concluded that these plutonium-based facilities could give North Korea the capability to produce over 30 atomic weapons annually. North Korea had concluded a safeguards agreement with the International Atomic Energy Agency (IAEA) in 1992, which required North Korea to report all nuclear programs to the IAEA and gave the IAEA the right to conduct a range of inspections of North Korea's nuclear installations. However, North Korea obstructed or refused IAEA inspections in 1993-94, including refusal to allow an IAEA special inspection of a underground facility, which the IAEA believed was a nuclear waste site.

The Agreed Framework provided for the suspension of operations and construction of North Korea's "graphite-moderated reactors and related facilities" and the storage of 8,000 nuclear fuel rods that North Korea had removed from the five megawatt reactor in May 1994. It provided to North Korea 500,000 tons of heavy oil annually until two light-water nuclear reactors (LWRs) are constructed in North Korea. The United States was obligated to facilitate the heavy oil shipments and organize the construction of the LWRs. The IAEA monitored the freeze of the designated facilities and activities. The Agreed Framework

¹ For assessments of diplomacy on the North Korean nuclear issues, see Sejong Institute (Seoul). *The Second Bush Administration and the Korean Peninsula*. Papers presented at the 2nd Korea-U.S. Security Forum, March 30-April 2, 2005.

stated that before North Korea receives nuclear materials for the LWRs, it was obligated to come into full compliance with its obligations as a signatory to the Nuclear Non-Proliferation Treaty with regard to its past nuclear activities. Clinton Administration officials testified that this clause obligated North Korea to allow IAEA inspection of the suspected waste site and the stored fuel rods. They also testified that any additional North Korean nuclear programs, including any secret programs, are covered by the 1992 safeguards agreement and are subject immediately to IAEA safeguards, including inspections.

According to U.S. officials, North Korea admitted to having a secret uranium enrichment program when U.S. officials visited Pyongyang in October 2002 (North Korea since has denied making an admission). This confirmed U.S. intelligence information of such a program that had built up since 1998. The Bush Administration reacted by calling for concerned governments to pressure North Korea to abandon the secret uranium enrichment program. In November 2002, it pushed a resolution through KEDO to suspend heavy oil shipments to North Korea. (The Administration subsequently secured a suspension of construction of the light-water reactors; the suspension was renewed in November 2004) North Korea then initiated a number of aggressive moves to reactivate the plutonium-based nuclear program shut down in 1994 under the Agreed Framework: re-starting the small, fivemegawatt nuclear reactor, announcing that construction would resume on two larger reactors, announcing that it would re-start the plutonium reprocessing plant, and removing the 8,000 nuclear fuel rods from storage facilities. North Korea also expelled IAEA officials who had been monitoring the freeze of the plutonium facilities under the Agreed Framework. In January 2003, North Korea announced withdrawal from the Nuclear Non-Proliferation Treaty. It threatened to end its moratorium on long-range missile testing in effect since September 1999. North Korea asserted that it possessed nuclear weapons and that it had completed reprocessing of the 8,000 fuel rods into weapons-grade plutonium. According to nuclear experts and reportedly by U.S. intelligence agencies, this reprocessing would produce enough plutonium for four to six atomic bombs. Moreover, North Korea threatened to export nuclear materials. A Central Intelligence statement of August 18, 2003, estimated "that North Korea has produced one or two simple fission-type nuclear weapons and has validated the designs without conducting yield-producing nuclear tests." Reuters News Agency and the Washington Post reported on April 28, 2004, that U.S. intelligence agencies were preparing a new National Intelligence Estimate that likely would conclude that North Korea had approximately eight atomic bombs based on plutonium and that the secret uranium enrichment program would be operational by 2007 and would produce enough weaponsgrade uranium for up to six atomic bombs annually.

The Administration's policy has contained three elements: (1) a demand for unilateral concessions, (2) the avoidance of direct negotiations with North Korea, and (3) the isolation of North Korea internationally. In demanding unilateral concessions, the Administration called on North Korea to commit to and take concrete measures to realize the "complete, verifiable, irreversible dismantlement" of its nuclear programs, both the plutonium program and the secret uranium enrichment program. This demand has become known as "CVID." The Administration asserts that North Korea must follow procedures similar to those that Libya has adopted in giving up its weapons of mass destruction.

Administration officials have spoken often about the objective of "isolating" North Korea. There are two components to this goal. One is to isolate North Korea from diplomatic support from other governments over the nuclear issue and create a bloc of

governments demanding that North Korea accept CVID. The second component is the creation of a coalition of governments willing to impose economic sanctions on North Korea if Pyongyang rejects CVID. Since May 2003, the United States has formed a Proliferation Security Initiative (PSI) with more than ten other countries aimed at interdicting exports of weapons of mass destruction and illegal drugs by proliferator countries. Measures are being planned to interdict North Korean sea and air traffic. The Administration reportedly has drafted plans for economic sanctions, including cutting off financial flows to North Korea from Japan and other sources and interdicting North Korean shipments of missiles to the Middle East and South Asia and reducing North Korea's exports of drugs and counterfeit currency. The Administration is pressuring several countries to cease purchases of North Korean missiles. The aim of the PSI would be to constrict sharply North Korean foreign exchange earnings, which are a major source of sustenance to the North Korean political elite and the North Korean military.

In early 2003, the Administration proposed multilateral talks. After a U.S.-North Korea-China meeting in April 2003, three plenary sessions of six-party talks (including South Korea, Japan, and Russia) were held in August 2003, February 2004, and June 2004. The Administration has viewed several roles for the six-party talks. The talks help the Administration avoid bilateral negotiations with North Korea. Until the June 2004 meeting, the Administration limited direct contact with North Korean delegates. The Administration also views the six-party talks as giving it a vehicle to secure support from China, South Korea, Japan, and Russia for the U.S. CVID demand. U.S. officials have spoken of creating a five-versus-one situation in the six-party talks, thus isolating North Korea. This would lay the groundwork for the participation of these countries in sanctions against North Korea if North Korea rejected CVID — sanctions either through the U.N. Security Council and/or the PSI. Since 2002, Administration officials have expressed a view that North Korea would isolate itself through its provocative actions in reopening its plutonium nuclear program and its threats to proliferate nuclear materials and test nuclear weapons and missiles.

The Administration has placed emphasis on China's role in the talks, stating that China should exert diplomatic pressure on North Korea to accept CVID. Some Administration officials expressed the view that China could be persuaded to join the United States in sanctions against North Korea even to the extent of creating an internal crisis within the North Korean regime. The importance of China is pointed up by the mutual defense treaty China has with North Korea and China's role in supplying North Korea with an estimated 90% of its oil and 40% of its food.

In the summer of 2003, the North Korean leadership appeared worried at the prospect of international isolation and heavier U.S. pressure. From that point, there emerged a multifaceted North Korean diplomatic strategy backed by a concerted propaganda campaign aimed at strengthening Pyongyang's position in the six-party talks and weakening the U.S. position. A lead component of North Korea's strategy has been to threaten repeatedly that it would abandon the six-party talks. North Korea apparently has employed this threat to demand that China, the host of the talks, provide it with financial subsidies and increased shipments of food and oil as "payment" for North Korean agreement to attend future sessions of the talks. But with these threats, North Korea made a series of proposals: first, a formal U.S.-North Korean non-aggression pact, later modified to a formal U.S. guarantee that the United States would not attack North Korea; second, a "freeze" of North Korea's plutonium program; and third, retention by North Korea of a "peaceful" nuclear program. North Korean

proposals called for extensive concessions by the United States and Japan, including removal of North Korea from the U.S. list of terrorist-supporting states, supply of electricity, several billion dollars in "compensation" from Japan, restoration of shipments of heavy oil and construction of the two light-water nuclear reactors under the 1994 Agreed Framework, and an end to U.S. economic sanctions and U.S. interference in North Korea's economic relations with other countries. While keeping its proposals vague regarding content and its own obligations, North Korea has engaged in a concerted propaganda campaign, promoting its proposals and accusing the Bush Administration of plotting an "Iraq-like" attack.

An element in North Korea's counter-strategy has been a campaign to deny that it has a uranium enrichment (HEU) program. From the summer of 2003, North Korean propaganda organs have escalated denials of an HEU program and denials that North Korean officials admitted an HEU program to U.S. officials in October 2002. North Korea also moderated its threats of proliferation and testing.

North Korea gained a stronger position in the February 2004 plenary session of the six-party talks and afterward. The Administration's goal of creating a five-versus-one situation remained distant. North Korea's proposals for a nuclear "freeze" and retention of a "peaceful" nuclear program occupied much of these meetings. U.S. negotiators claimed that the other four participants supported CVID; but China and Russia expressed sympathy and/or support for Pyongyang's proposals of a U.S. non-aggression guarantee, nuclear freeze, and North Korean retention of a "peaceful" nuclear program. China asserted that the goal of the talks should be to eliminate North Korea's "nuclear weapons" rather than its nuclear programs. Russia and China voiced doubts that North Korea has an HEU program, and they did not challenge North Korea's denial strategy; in June 2004, a top Chinese official openly challenged the U.S. claim. Moreover, North Korea had succeeded in extracting more fuel, food, and financial subsidies (at least \$50 million) from China in bargaining over North Korea's participation in the talks. China, Russia, and South Korea expressed opposition to economic sanctions, and only Japan joined the PSI.

The Bush Administration modified its policy in certain areas to counter North Korean strategy and the attitudes of China and Russia but with minimum success. President Bush responded to Chinese urgings in October 2003 and offered to propose a multilateral security guarantee to North Korea. The Administration attempted to use the reported "confession" of A.Q. Khan, Pakistan's nuclear czar, to rebuff North Korea's denial campaign regarding the HEU program; Khan reportedly admitted that he had transferred technology and components of an HEU program to North Korea. However, Khan's "confession" was based on second-hand information; and it did not change the Russian and Chinese positions.

Pressure from the other participants in the six-party talks and the lack of progress toward U.S. goals at the talks appear to be major factors behind the Bush Administration's decision to issue the comprehensive proposal of June 23, 2004. The U.S. proposal called for a quick dismantlement of North Korea's plutonium and uranium enrichment programs following a three-month "preparatory period." During the preparatory period, North Korea would declare its nuclear facilities and materials, suspend their operation, allow effective international inspections including a return of the IAEA, and negotiate the steps to be taken in dismantlement. In return, South Korea and Japan would supply North Korea with heavy oil. North Korea would receive a "provisional multilateral security assurance" against a U.S. attack. The United States and North Korea would begin talks over U.S. economic sanctions

and North Korea's inclusion on the U.S. list of terrorist-supporting countries. The participants in the talks also would begin a study of North Korea's energy situation. After North Korea completed dismantlement, it would receive a permanent security guarantee, and permanent solutions to its energy problems would be undertaken.

North Korea's decision, announced on July 24, 2004, to reject the U.S. proposal as a "sham proposal" and its subsequent refusal to participate in scheduled six-party meetings in August and September 2004, apparently was motivated at least in part by the objective of "killing" the June 23 proposal as an active basis of future negotiations. Pyongyang seemed to believe that if it succeeded, the United States would be in a weakened position with limited options in 2005. The other six-party participants gave no endorsements or positive statements of the June 23 proposal after the June 2004 six-party meeting; this appears to have encouraged North Korea to initiate its "kill strategy." The other governments refrained from criticizing North Korea's post-July 24 obstructionist tactics. China and Russia continued to voice support for elements of North Korea's "reward for freeze" proposal; and they continued to express skepticism toward the U.S. claim of a secret North Korean HEU program. South Korean officials joined in voicing skepticism. China reportedly continued to offer "gifts" of oil, food, and money. The Bush Administration did not have a followup strategy to promote the June 23 proposal, gain diplomatic support for it from the other sixparty governments, and create pressure on North Korea to accept it as a basis for negotiations. By the time of the U.S.2004 elections, Chinese, South Korean, and Russian officials stated publicly that the U.S. proposal was inadequate. China and South Korea reportedly want the United States to contribute financially to the delivery of heavy oil to North Korea in the first stage of a settlement. South Korean President Roh Moo-hyun's speeches in November 2004 criticized U.S. policies and praised North Korea's "reward for freeze" proposal. In mid-2005, South Korean officials called for a more detailed proposal.

North Korea formalized this strategy with its statements of February 10 and March 31, 2005, claiming that it has nuclear weapons, suspending participation in the six-party talks, and demanding a new agenda for the talks emphasizing reductions in U.S. forces and military activities in and around the Korean peninsula. North Korea appears to have felt confident enough of its diplomatic position that it expanded its diplomatic objectives to the creation of a protracted, long-term diplomatic stalemate on the nuclear issue.

North Korea's Missile Program.² North Korea's proposal at Beijing offers to "settle the missile issue" but provides no details. North Korea has maintained a moratorium on flight testing of long-range missiles since September 1999. The last such missile test, on August 31, 1998, flew over Japanese territory. Japan also believes it is threatened by approximately 100 intermediate-range Nodong missiles, which North Korea has deployed. Reports since 2000 cite U.S. intelligence findings that North Korea is developing a Taepo Dong-2 intercontinental missile that would be capable of striking Alaska, Hawaii, and the U.S. west coast with nuclear weapons. U.S. officials reportedly claimed in September 2003 that North Korea had developed a more accurate, longer-range intermediate ballistic missile that could reach Okinawa and Guam (sites of major U.S. military bases) and that there was evidence that North Korea had produced the Taepo Dong-2. U.S. officials reportedly told

² Kim Kyoung-soo (ed.). *North Korea's Weapons of Mass Destruction*. Elizabeth, New Jersey, and Seoul: Hollym Corporation, 2004: p.121-148.

Japanese counterparts in July 2003 that North Korea was close to developing nuclear warheads for its missiles.

In the 1990s, North Korea exported short-range Scud missiles and Scud missile technology to countries in the Middle East. It exported Nodong missiles and Nodong technology to Iran, Pakistan, and Libya. In 1998, Iran and Pakistan successfully tested medium-range missiles modeled on the Nodong. Japan's *Sankei Shimbun* newspaper reported on August 6, 2003, that North Korea and Iran were negotiating a deal for the export of the long-range Taepo Dong-2 missile to Iran and the joint development of nuclear warheads. Pakistani and Iranian tests of North Korean-designed missiles have provided "surrogate testing" that dilutes the limitations of the September 1999 moratorium.

The test launch of the Taepo Dong-1 spurred the Clinton Administration to intensify diplomacy on North Korea's missile program. The Administration's 1999 Perry initiative set the goal of "verifiable cessation of testing, production and deployment of missiles exceeding the parameters of the Missile Technology Control Regime, and the complete cessation of export sales of such missiles and the equipment and technology associated with them." The Perry initiative offered to normalize U.S.-North Korean relations, an end to U.S. economic sanctions, and other economic benefits in return for positive North Korean actions on the missile and nuclear issues. This produced the September 1999 North Korean moratorium on long-range missile testing. The Clinton Administration responded in June 2000 by lifting of a significant number of U.S. economic sanctions against North Korea.

In October 2002, the Clinton Administration reportedly proposed a comprehensive deal covering all aspects of the issue. North Korea offered to prohibit exports of medium- and long-range missiles and related technologies in exchange for "in-kind assistance." (North Korea previously had demanded \$1 billion annually.) It also offered to ban permanently missile tests and production above a certain range in exchange for "in-kind assistance" and assistance in launching commercial satellites. Pyongyang offered to cease the deployment of Nodong and Taepo Dong missiles. It proposed that President Clinton visit North Korea to conclude an agreement. The negotiations reportedly stalled over four issues: North Korea's refusal to include short-range Scud missiles in a missile settlement; North Korea's non-response to the U.S. position that it would have to agree to dismantle the already deployed Nodong missiles; the details of U.S. verification of a missile agreement; and the nature and size of a U.S. financial compensation package.

The Bush Administration repeatedly described North Korea as a dangerous proliferator of missiles and demanded that North Korea cease exporting missiles and missile technology. However, the Administration has offered no specific negotiating proposal on missiles. The Administration emphasized the necessity of installing an anti-missile defense system in Alaska, which it claimed would be 90% effective in intercepting North Korean missiles; non-Administration experts have expressed skepticism over this claim.

Weapons of Mass Destruction.³ The Bush Administration's emphasis on North Korea's weapons of mass destruction (WMDs) resulted from the September 11, 2001, terrorist attack. A Pentagon report on the North Korean military, released in September

³ Ibid., p.79-120.

2000, stated that North Korea had developed up to 5,000 metric tons of chemical munitions and had the capability to produce biological weapons, including anthrax, smallpox, the bubonic plague, and cholera. The Bush Administration has expressed concern that North Korea might sell nuclear, chemical, or biological weapons to a terrorist group such as Al Qaeda or that Al Qaeda might acquire these weapons from a Middle East country that had purchased them from North Korea. In November 2001, President Bush included North Korea's WMDs as part of the "war against terrorism." The Bush Administration has not accused North Korea directly of providing terrorist groups with WMDs. There are reports from the early 1990s that North Korea exported nuclear technology to Iran and that North Korea assisted Syria and Iran in developing chemical and biological weapons capabilities.

North Korea's Inclusion on the U.S. Terrorism List. In February 2000, North Korea began to demand that the United States remove it from the U.S. list of terrorist countries. North Korea's proposals at the six-party nuclear talks also call for the United States to remove Pyongyang from the terrorist list. North Korea's chief motive appears to be to open the way for the nation to receive financial aid from the World Bank and the International Monetary Fund (IMF). P.L. 95-118, the International Financial Institutions Act, requires the United States to oppose any proposals in the IMF and World Bank to extend loans or other financial assistance to countries on the terrorism list. The South Korean Kim Dae-jung Administration also urged the United States to remove North Korean from the terrorism list so that North Korea could receive international financial assistance.

Japan has urged the United States to keep North Korea on the terrorism list until North Korea resolves Japan's concerns over North Korea's sanctuary to members of the terrorist Japanese Red Army organization and evidence that North Korea kidnapped and is holding Japanese citizens. The Clinton Administration gave Japan's concerns increased priority in U.S. diplomacy in 2000 (See CRS Report RL30613, North Korea: Terrorism List Removal?). At the Beijing meetings, the Bush Administration called on North Korea to resolve the issue with Japan. In 2004, the Administration made the kidnapping of Japanese citizens an official reason for North Korea's inclusion on the terrorist list. Kim Jong-il's admission, during the Kim-Koizumi summit of September 2002, that North Korea had kidnapped Japanese citizens did not resolve the issue. His claim that eight of the 13 admitted kidnapped victims are dead raised new issues for the Japanese government, including information about the deaths of the kidnapped and the possibility that more Japanese were kidnapped. The five living kidnapped Japanese returned to Japan in October 2002. In return, Japan promised North Korea 250,000 tons of food and \$10 million in medical supplies. However, in late 2004, Japan announced that the remains of two alleged kidnapped Japanese that North Korea had turned over to Japan were false remains. This prompted demands in Japan for sanctions against North Korea. The Bush Administration reportedly advised Japan to refrain from sanctions because of a potential negative impact on the six-party talks.

Food Aid. From 1995 through 2004, the United States supplied North Korea with over 1.9 million metric tons of food aid through the United Nations World Food Program (WFP). South Korea has extended increasing amounts of bilateral food aid to North Korea, including one million tons of rice in 2004. Agriculture production in North Korea began to decline in the mid-1980s. Severe food shortages appeared in 1990-1991. In September 1995, North Korea appealed for international food assistance. The Clinton Administration used food aid to secure North Korean agreement to certain types of negotiations and North Korean agreement to allow a U.S. inspection of the suspected nuclear site at Kumchangri.

The Bush Administration has reduced food aid, citing North Korean refusal to allow adequate access and monitoring; as of this writing, the Administration had made no pledge for 2005. The WFP acknowledges that North Korea places restrictions on its monitors' access to the food distribution system, but it believes that most of its food aid reaches needy people. Several private aid groups, however, withdrew from North Korea because of such restrictions and suspicions that the North Korean regime was diverting food aid to the military or the communist elite living mainly in the capital of Pyongyang. It is generally agreed that the regime gives priority to these two groups in its overall food distribution policy. Some experts also believe that North Korean officials divert some food aid for sale on the extensive black market. The regime has spent none of several billion dollars in foreign exchange earnings since 1998 to import food or medicines. The regime refuses to adopt agricultural reforms similar to those of fellow communist countries, China and Vietnam, including dismantling of Stalinist collective farms. It is estimated that one to three million North Koreans died of malnutrition between 1995 and 2003.⁴

North Korean Refugees in China and Human Rights. This issue confronted governments after March 2002 when North Korean refugees, aided by South Korean and European NGOs, sought asylum in foreign diplomatic missions in China and the Chinese government sought to prevent access to the missions and forcibly removed refugees from the Japanese and South Korean embassies. The refugee exodus from North Korea into China's Manchuria region began in the mid-1990s as the result of the dire food situation in North Korea's provinces in the far north and northeast along the Chinese border. Estimates of the number of refugees cover a huge range, from 10,000 to 300,000, including a State Department estimate of 30,000-50,000 in June 2005.

Generally, China tacitly accepted the refugees so long as their presence was not highly visible. China also allowed foreign private NGOs, including South Korean NGOs, to provide aid to the refugees, again so long as their activities were not highly visible. China barred any official international aid presence, including any role for the United Nations High Commission for Refugees. It instituted periodic crackdowns that included police sweeps of refugee populated areas, rounding up of refugees, and repatriation to North Korea. Since early 2002, China allowed refugees who had gained asylum in foreign diplomatic missions to emigrate to South Korea. However, China's crackdown on the border reportedly included the torture of captured refugees to gain information on the NGOs that assisted them.

China tries to prevent any scenario that would lead to a collapse of the Pyongyang regime, its long-standing ally. Chinese officials fear that too much visibility of the refugees and especially any U.N. presence could spark an escalation of the refugee outflow and lead to a North Korean regime crisis and possible collapse. China's crackdowns are sometimes a reaction to increased visibility of the refugee issue. China's interests in buttressing North Korea also have made China susceptible to North Korean pressure to crack down on the refugees and return them. Reports in 2003 and 2004 described stepped-up security on both sides of the China-North Korea border to stop the movement of refugees and Chinese roundups of refugees and repatriation to North Korea. South Korea, which had turned

⁴ Natsios, Andrew S. *The Great North Korean Famine*. Washington, U.S. Institute of Peace Press, 2001. Flake, L. Gordon and Snyder, Scott. *Paved with Good Intentions: The NGO Experience in North Korea*. Westport, Connecticut: Praeger, 2003.

refugees away from its diplomatic missions, changed its policy in response to the new situation. It accepted refugees seeking entrance into its missions and allowed them entrance into South Korea, and it negotiated with China over how to deal with these refugees.⁵ However, South Korea, too, opposes encouragement of a refugee exodus from North Korea.

The Bush Administration gave the refugee issue low priority. The Administration requested that China allow U.N. assistance to the refugees but asserted that South Korea should have the lead diplomatically with China. The issue has been aired in congressional hearings. In June 2002, the House of Representatives passed H.Con.Res. 213, which calls on China to halt forced returns of refugees to North Korea and give the U.N. High Commission on Refugees access to North Korean refugees.

The refugee issue had led to increased outside attention to human rights conditions in North Korea. Reports assert that refugees forcibly returned from China have been imprisoned and tortured in an extensive apparatus of North Korean concentration camps modeled after the "gulag" labor camp system in the Soviet Union under Stalin. Reports by Amnesty International, the U.S. State Department, and, most recently, the U.S. Committee for Human Rights in North Korea have described this system as holding up to 250,000 people. In 2003 and 2004, the United States secured resolutions from the U.N. Human Rights Commission expressing concern over human rights violations in North Korea, including concentration camps and forced labor. South Korea abstained from the Commission's votes in the interest of pursuing its "sunshine" policy with North Korea.

South Korean officials also criticized passage by Congress in October 2004 of H.R. 4011, the North Korean Human Rights Act of 2004. The act (P.L. 108-333) grants asylum and legal immigration status to North Korean refugees and requires the U.S. executive branch adopt a number of measures aimed at furthering human rights in North Korea, including financial support of nongovernmental human rights groups, increased radio broadcasts into North Korea, sending of radios into North Korea, and a demand for more effective monitoring of food aid.

South Korea's Sunshine Policy and the Hyundai Payments to North Korea.

South Korean President Kim Dae-jung took office in 1998, proclaiming a "sunshine policy" of reconciliation with North Korea. He achieved a breakthrough in meeting with North Korean leader Kim Jong-il in Pyongyang, June 13-14, 2000. Seoul and Pyongyang then negotiated agreements on the restoration of a railway and road across the demilitarized zone (DMZ), investment guarantees and tax measures to stimulate South Korean private investments in North Korea, provision of South Korean food aid to North Korea, and flood control projects for the Imjim River. President Kim called on the United States to support his sunshine policy by normalizing diplomatic relations with North Korea, negotiating a missile agreement with Pyongyang, and removing North Korea from the U.S. terrorist list. Negotiations in August 2002 produced a renewal of family reunions and agreement to implement economic agreements of 2000. The roads in the eastern and western sectors of the DMZ opened in 2003, and work on the rail lines is continuing. Seoul and Pyongyang

⁵ Kirk, Jeremy. "N. Korean Defections Strain Ties," Washington Times, February 11, 2005. p.A17.

⁶ Hawk, David. *The Hidden Gulag: Exposing North Korea's Prison Camps*. Washington, U.S. Committee for Human Rights in North Korea, 2004.

reached agreement in November 2002 on South Korean aid to construct a special economic zone at Kaesong inside North Korea to attract South Korean private investment. North Korea subsequently issued a law for foreign investment at Kaesong. The first South Korean companies began operations at Kaesong in late 2004. In June 2004, North and South Korea agreed to set up military hotlines and cease propaganda broadcasts across the DMZ. Current South Korean president Roh Moo-hyun has pledged to continue aid, trade, and programs with North Korea under a "peace and prosperity" policy, despite North Korea's February 10, 2005 statement suspending its participation in the six-party nuclear talks. Roh consistently has opposed sanctions or other coercive measures against North Korea.

The most controversial component of the sunshine policy has been the cash payments the Hyundai Group has made to North Korea, supported by the R.O.K. government. In October 1998, Hyundai Asan, one of the member companies of the Hyundai Group, entered into an agreement with North Korea to operate a tourism enterprise at Mount Kumgang in North Korea. The agreement stipulated that Hyundai Asan would make cash payments to the North Korean government of \$942 million over six years plus \$300 from each tourist. From 1999 into 2003, Hyundai made public cash payments of about \$600 million to North Korea for the Mt. Kumgang project and two other projects. According to informed sources available to CRS in 2001, Hyundai companies made additional secret payments to North Korea. Hyundai officials and the Kim Dae-jung administration denied for nearly two years that secret payments were made. In early 2003, however, they admitted to secret payments of \$500 million and that the money was transferred shortly before the June 2000 North-South summit.

Investigations by a special prosecutor and South Korean newspapers revealed that North Korean leader Kim Jong-il demanded \$1 billion from Hyundai Asan in return for meeting with Kim Dae-jung.⁸ Chung Mong-hun, the CEO of Hyundai Asan and one of the sons of Hyundai's founder, Chung Ju-yung, initially turned down the North Korean demand; but officials of the Kim Dae-jung administration urged him to make payments. Hyundai Asan and North Korean officials agreed on \$500 million on April 8, 2000. The special prosecutor's findings were that several Hyundai member companies of the Hyundai Group (also run by Chung family members) were involved in making the secret payments a few days before the summit: Hyundai Merchant Marine (\$200 million); Hyundai Engineering and Construction (\$150 million); Hyundai Electronics (\$100 million); and Hyundai Asan (\$50 million in luxury goods). The special prosecutor also found that officials of the government's Korean Exchange Bank and the National Intelligence Service helped the Hyundai companies transfer the money to North Korean bank accounts in Macao, Singapore, and Austria. Senior officials of the Kim Dae-jung administration facilitated a loan of 400 billion won (about \$359 million) from the Korea Development Bank to Hyundai Merchant Marine. company immediately transferred 223.5 billion won (about \$190 million) of this to the R.O.K. National Intelligence Service, which transferred the money to the North Korean bank

⁷ Choe Sang-hun. N. Korea proves tough sell as tour destination. *Washington Times*, February 20, 2004. p. A17. Cho Hyung-rae. "Total Official NK Aid Hits US\$1.3 Billion," *Chosun Ilbo* (internet version), January 31, 2003.

⁸ Choe Chae-hyok. "Cash-for-Summit Deal Coming to Light," *Chosun Ilbo* (internet version), June 11, 2003. Yonhap News Agency report, February 7, 2003.

account in Macao. Thus, a sizeable share of the secret payments came from the South Korean government. President Roh Moo-hyun cut off the special prosecutor's investigation in June 2003; the opposition Grand National Party has charged that there were additional secret payments totaling several hundred million dollars. There were six indictments and convictions of R.O.K. and Hyundai officials.

After the conclusion of the Mt. Kumgang agreement, U.S. military officials were suspicious that North Korea was using the Hyundai money for military purposes. U.S. military officials in Korea reportedly raised the issue with Hyundai officials in November 1999. The Korea Herald, on February 5, 2001, quoted a spokesman for the U.S. Military Command in Korea that "I know that military experts at home and abroad are concerned about Pyongyang's possible diversion of the [Hyundai] cash for military purposes." Most serious is strong circumstantial evidence that the Hyundai payments helped North Korea to accelerate the financing of its secret highly enriched uranium (HEU) nuclear program. The first element of this evidence is the corresponding time frame of 1999-2001 when the Hyundai cash was flowing to North Korea and North Korea apparently was accelerating its foreign exchange expenditures overseas to procure components and materials for the HEU program. According to CIA estimates and statements of former Clinton Administration officials, quoted in the Washington Post of February 1, 2003, 10 North Korea began to procure uranium enrichment technology in 1999 and accelerated procurements and attempted procurements into 2000 and 2001. The Asian Wall Street Journal of October 29, 2002, reported that North Korea had paid \$75 million to Pakistan's Khan laboratory, which specialized in Pakistan's HEU nuclear weapons program.11 Jim Hoagland reported in the Washington Post of November 10, 2002, that North Korea had acquired 2,000-3,000 centrifuges, the basic infrastructure component for producing HEU; he also cited former Clinton Administration officials that North Korea began to accelerate the program in 1999. 12

A second element of evidence is that estimates of North Korea's exports in 1999 and 2000 indicate that Hyundai cash payments of over \$1 billion made up approximately 25% of North Korea's foreign exchange earnings. North Korea's economic collapse of the 1990s reached a nadir in those years with commercial exports falling to around \$600 million annually. North Korea also suffered from a commercial trade deficit of about \$1 billion annually. Exports of missiles and illegal drugs were estimated at close to \$1 billion in 2001 by the U.S. military command in South Korea, but other estimates of earnings from illegal drugs is in the range of \$200 million.¹³

⁹ Kang Chu-an. "North Cash Called "Payoff" by Counsel," *Chungang Ilbo* (internet version), June 26, 2003. Yim Chang-hyok and Kang Il-sik. "Counsel Says 2d Hyundai Firm Sent Cash North," *Chungang Ilbo* (internet version), June 5, 2003.

¹⁰ Pincus, Walter. "N. Korea's Nuclear Plans Were No Secret," *Washington Post*, February 1, 2003. p.A1.

¹¹ Gittings, Danny. "Battling the Bribers," Asian Wall Street Journal, October 29, 2002. p. A11.

¹² Hoagland, Jim. "Nuclear Deceit," Washington Post, November 10, 2002. p.B7.

¹³ CRS Report RL32167, *Drug Trafficking and North Korea: Issues for U.S. Policy*, by Raphael F. Perl. Ash, Robert F. Economy of the Democratic People's Republic of Korea. *The Far East and Australasia* 2004. London and New York: Europa Publications, 2004. p.497. Yu Yong-won. "US (continued...)

The third element of evidence is the role of Bureau 39 of the North Korean Communist Party as both the recipient of the Hyundai money and the procurer of overseas components and technology for North Korea's nuclear programs. Bureau 39 reportedly is located in Kim Jong-il's headquarters and is directed by him. Bureau 39's functions reportedly include controlling and enlarging the inflow of foreign exchange to Kim Jong-il through legal exports and illegal exports such as drug smuggling. It also directs North Korea's foreign exchange expenditures with two priorities: (1) procurement of luxury products from abroad that Kim Jong-il distributes to a broad swath of North Korean military, party, and government officials to secure their loyalty — estimated at \$100 million annually by U.S. military officials in Seoul, according to a Reuters report of March 4, 2003; and (2) procurement overseas of components and materials for North Korea's weapons of mass destruction (WMDs), including nuclear programs. Bureau 39 is known to operate banks in Macau, Singapore, and Vienna and a number of front companies overseas to purchase WMD components. 14 Marcos Noland of the Institute of International Economics wrote in 2000 that Hyundai official payments for the Mount Kumgang tourist project apparently were "going into the Macau bank account of Bureau 39."15 The South Korean special prosecutor and South Korean newspapers learned that the secret Hyundai payments of 2000 were transferred to bank accounts in Macao, Singapore, and Vienna controlled by Bureau 39. South Korea's National Intelligence Service reportedly intercepted a message of June 12, 2000, from the head of North Korea's Jokwang Trading Company in Macau (a known front of Bureau 39) to Communist Party officials in Pyongyang that the Hyundai secret payments had been received.16

Forces Korea Discloses for the First Time That North Korea Exports Missiles Worth \$600 Million per Year." *Chosun Ilbo* (internet version), May 13, 2003.

^{13 (...}continued)

¹⁴ There are a number of reports on Bureau 39, which contain similar information on its functions, including its role in overseas procurements for WMDs. See Solomon, Jay and Choi Hae-won. "Money Trail: in North Korea, Secret Cash Hoard Props up Regime — defectors, Intelligence Sources Say Division 39 Supplies Billions to Kim Jong il," *Wall Street Journal*, July 14, 2003. p.A1. U Chong-chang. "Kim Jong-il's Slush Funds," *Wolgan Chosun* (Seoul), November 1, 2000. p.222-236. Suetsugu Tetsuya. "Risky business Leading N. Korea to Ruin." *Yomiuri Shimbun* (Tokyo, internet version), August 22, 2003. Solomon, J., Hae Won Choi, B. Baas, and C. Hardt. "The Dictator's Long Shadow: Secret Network of Funds and Firms Supports North Korean Regime," *Duesseldorf Handelsblatt (internet version)*, August 6, 2003. Leidig, Michael. "Austria Accuses North Korean Bank of Spying," *London Daily Telegraph* (internet version), July 23, 2003.

¹⁵ Noland, Marcus. "Economic Integration Between North and South Korea," *Korea's Economy* 2000. Washington: Korean Economic Institute, 2001. p.69.

¹⁶ Kang, Chu-an. "North Cash Called "Payoff" by Counsel," *Chungang Ilbo* (internet version), June 26, 2003. Kim In-ku. "Money Sent Through Spy Office," *Chosun Ilbo* (internet version), February 18, 2003. Special Reporting Team. "Wiretappers Intercepted Call Reporting Cash Transfer," *Chungang Ilbo* (internet version), February 17, 2003.

Anti-Americanism and Plans to Change the U.S. Military Presence¹⁷

Beginning in early 2003, the Bush Administration made a series of decisions that will alter the U.S. presence in South Korea: withdrawal of the Second Infantry Division of about 15,000 troops from its position just below the DMZ to "hub bases" about 75 miles south; and relocation of the U.S. Yongsan base, housing about 8,000 U.S. military personnel in the center of Seoul, away from the city. (A 1991 agreement to relocate Yongsan never was implemented.) In May-June 2004, the Pentagon disclosed a plan to withdraw 12,500 U.S. troops from South Korea by the end of 2005, including the deployment to Iraq by August 2004 of one of the two combat brigades of the Second Division. Such a withdrawal would reduce U.S. troop strength in South Korea from 37,000 to about 24,000. The 3,600-man brigade left for Iraq in August 2004; but under South Korean pressure, the Pentagon agreed in October 2004 to withdraw the remainder of the 12,500 troops in phases stretching to September 2008 and to keep close to 1,000 U.S. military personnel in Seoul after the closing of the Yongsan base. Pentagon officials spoke of U.S. military compensation measures, including the augmentation of air and naval forces in the Western Pacific; they later deployed F-117 stealth fighters to South Korea. The Pentagon and the U.S. Pacific Command reportedly are considering changes in the U.S. military command structure in Korea, which presently includes the United Nations Command, the U.S. Forces Korea (USFK) Command, and the U.S.-South Korean Combined Forces Command. Reportedly, a new U.S. Army Command in Japan would supervise a downgraded USFK. The Pentagon will invest \$11 billion to upgrade U.S. forces in Korea. The South Korean government has expressed reservations over the U.S. decisions; but it has concluded agreements with the Pentagon to facilitate the relocations. South Korea has agreed to assume the estimated \$3-4 billion cost of relocating the Yongsan garrison by 2008 in an agreement finalized in July 2004.

There are several rationales for the Pentagon's decisions. One is a doctrine of "strategic flexibility" under which the United States could use U.S. forces in South Korea in contingencies outside the Korean peninsula. Relocation of the Second Division will facilitate its restructuring along the lines of the Pentagon's plans to restructure the Army's traditional combat divisions into smaller, mobile combat brigades. The withdrawal of troops will help the U.S. Army meet the manpower burdens in Iraq and in other fronts in the "war against terrorism." U.S. officials also have voiced the hope that the troop changes and reduction would mitigate the rising anti-American sentiment among South Koreans.

Anti-American sentiment is based on a younger generation of South Koreans who came of age under South Korean authoritarian regimes. Members of this "386" generation now occupy positions of power and criticize the United States for the perceived U.S. support of these regimes. After 1998, South Korean public opinion became critical of the U.S. military presence because of incidents involving South Korean civilians and the U.S. military, declining South Korean concerns over a North Korean military threat, and a view that USFK had exaggerated the capabilities of North Korean conventional forces. Later, criticisms arose of the Bush Administration's policies toward North Korea, reflecting South Korean public

¹⁷ Perry, Charles. *Alliance Diversification and the Future of the U.S.-Korean Security Relationship*. Herndon, Virginia: Brassey's, Inc., 2004. Mitchell, Derek (ed.). *Strategy and Sentiment: South Korean Views of the United States and the U.S.-ROK Alliance*. Washington, Center for Strategic and International Studies, 2004.

support for Kim Dae-jung's sunshine policy. In 2002, massive South Korean protests erupted when a U.S. military vehicle killed two Korean schoolgirls and the U.S. military personnel driving the vehicle were acquitted in a U.S. court martial. Roh Moo-hyun was elected in December 2002 after criticizing the United States during his campaign. Anti-U.S. sentiment is strong among younger South Koreans under 40, according to polls. Polls since January 2004 have found that more South Koreans view the United States as the biggest threat to South Korea as compared to those who view North Korea as the principal threat.

A network of non-governmental civic groups has taken up anti-American themes, including some accusations similar to those advanced by North Korean propaganda. A widespread South Korean view, reportedly held by some officials of the Roh Moo-hyun administration, is that the Pentagon's plan to relocate the Second Division is intended to get the Division out of range of North Korean artillery north of the DMZ so that the Bush Administration could launch a unilateral attack against North Korea. The U.S. invasion of Iraq also drew criticism from the South Korean public. President Roh faced public criticism for his decision to send a brigade-sized (about 3,000 troops) South Korean combat unit to Iraq. Roh has asserted that his ability to influence U.S. policy toward North Korea is a primary reason for his support of the U.S. war against Iraq. In October 2003, the R.O.K. government announced that it would commit \$200 million in reconstruction aid to Iraq.

President Roh raised new issues in early 2005 that potentially could affect the alliance. He asserted that U.S. forces in South Korea could not be used in contingencies in Northeast Asia without South Korean consent. He also declared that future South Korean security policy would seek for South Korea the role of a "balancer" among the major powers in Northeast Asia. Most analysts viewed both pronouncements as influenced by South Korea's growing ties with China and a desire to keep South Korea out of future disputes between the United States and China or Japan and China.

The total cost of stationing U.S. troops in South Korea is nearly \$3 billion annually. The South Korean direct financial contribution for 2005 and 2006 is \$681 million.

FOR ADDITIONAL READING

CRS Report RL31696. North Korea: Economic Sanctions.

CRS Issue Brief IB91141. North Korea's Nuclear Weapons Program.

CRS Report RS21473. North Korean Ballistic Missile Threat to the United States.

CRS Report RL31785. U.S. Assistance to North Korea.

CRS Report RL32167. Drug Trafficking and North Korea: Issues for U.S. Policy.